

Notice of Allowability	Application No.	Applicant(s)	
	09/419,439	HARTNETT ET AL.	
	Examiner	Art Unit	
	William H. Wood	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09 July 2004.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ The drawings filed on 21 January 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Beth McMahon on 08 September 2004.

The application has been amended as follows:

Claim 1

For use in a data processing system having an instruction processor to execute instructions included in the instruction set of the instruction processor, the instruction processor having an instruction pipeline capable of initiating simultaneous execution on a variable number of the instructions, up to a predetermined maximum number of instructions, in a predetermined period of time, a system for programmably controlling the variable number of the instructions beginning execution within the instruction pipeline during the predetermined period of time, comprising:

- ♦ a first storage device to receive and to store a programmable count value indicative of a predetermined number of instructions; and
- ♦ a logic sequencer coupled to said first storage device to receive said programmable count value, and in response thereto, to generate a pipeline control signal provided to the instruction pipeline to cause the instruction pipeline to receive, and to initiate concurrent execution on, the predetermined

number of the instructions in the predetermined period of time, whereby up to said predetermined maximum number of instructions may be executing simultaneously within the instruction pipeline.

Claim 19

For use in an instruction processor having an instruction pipeline for executing multiple instructions concurrently, the instruction pipeline being capable of initiating concurrent execution for up to a predetermined maximum number of instructions within a predetermined period of time, a system for programmably controlling the number of instructions for which concurrent execution is initiated within the predetermined period of time, comprising:

- ♦ storage means for receiving programmable count signals; and
- ♦ sequencer means for responding to said programmable count signals, and for issuing a pipeline control signal to the instruction pipeline for controlling the entry of instructions into the instruction pipeline such that concurrent execution is initiated for the number of instructions specified by said programmable count signals within a period of time equal to the predetermined period of time, whereby up to said predetermined maximum number of instructions may be executing simultaneously within the instruction pipeline.

Allowable Subject Matter

Claims 1-22 are allowed.

The following is an examiner's statement of reasons for allowance: the combined limitations of the independent claims are not taught or fairly suggested by the prior art of record singly or in a properly motivated combination. Claim 1 provides a pipeline capable of initiating simultaneous execution of up to a predetermined maximum number of instructions in a predetermined period of time and a logic sequencer capable of initiating simultaneous execution of a programmable count value of instructions whereby up to said predetermined maximum number of instructions may be executing simultaneously within the instruction pipeline as claimed. The prior art of record does not teach singly nor provide a clear motivation for combining the teachings thereof. Additional independent claims (claims 11 and 19) provide for limitations substantially similar to those of claim 1. Thus, the independent and all dependent claims are allowable over the prior art of record.

The prior art of record, **Alexander et al.**, provides a delaying "count". However, it does not provide a predetermined maximum number of instructions simultaneously executing in a predetermined period of time in relation to a logic sequencer initiating simultaneous execution on a programmable count value of a predetermined number of instructions as claimed in Applicant's independent claims. Thus, in view of the prior art of record, the claims are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2124

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Wood whose telephone number is (703)305-3305. The examiner can normally be reached 7:30am - 5:00pm Monday thru Thursday and 7:30am - 4:00pm every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

William H. Wood
September 14, 2004


KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100